

Region 2 RCRA Corrective Action Site Fact Sheet

Last Update: February 10, 2000

PHARMACIA & UPJOHN CARIBE, INC.

EPA ID#: PRD090398074

LOCATION: Highway No. 2 Km, Arecibo, Puerto Rico

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Other (Former) Names of Site:

Formerly the Upjohn Manufacturing Company (UMC). On November 30, 1996 UMC transferred its operating assets to Upjohn Caribe, Inc. and became known as Pharmacia & Upjohn Caribe, Inc. (PUCI) but remained a wholly owned subsidiary of UMC.

Site Description:

PUCI is located on the north coast of Puerto Rico, in the Sabana Hoyos Ward, which is approximately 30 miles from the San Juan metropolitan area. The facility is located in an area zoned as "industrial" (IL-2) by the local Planning Board. The size of the property site is 247.10 acres located at 275 to 330 feet above mean sea level. Merck Sharp & Dohme Chemical - Arecibo is located one mile from the PUCI facility. The surrounding area is dedicated to agriculture and cattle ranching.

Most of the facility has manufactured pharmaceuticals since 1973. The initial production processes included the formulation of raw materials, fermentation, extraction, crystallization, purification, and chemical synthesis of antibiotics; manufacturing and packaging of bulk and finished goods. Four extraction wells provide water for all manufacturing processes.

The PUCI facility generates waste in the chemical synthesis of antibiotics and other chemicals, packaging of liquid Clindamycin Topical solution, pharmaceutical manufacturing of analgesics, pharmaceutical packaging of medicines, chemical laboratories and parts cleaning machines.

Site Responsibility:

Clean-up at this site is being addressed by the U.S. Environmental Protection Agency (EPA), under authority of the Resource Conservation and Recovery Act (RCRA). However, the Puerto Rico Environmental Quality Board (EQB) participates with EPA in cleanup decision-making and oversight. This

fact sheet addresses cleanup under RCRA. In December 1991, EPA granted the facility a permit for hazardous waste treatment, storage and disposal. The permit included a requirement that PUCI cleanup contaminated areas of the facility. The cleanup provision outlined four specific activities to be performed: RCRA Facility Investigation (RFI), Interim Measures (IM), Corrective Measure Study (CMS) and Corrective Measure Implementation (CMI).

Government Performance and Results Act (GPRA) Status:

In 1993, Congress passed the Government Performance and Results Act (GPRA), which mandated that all Federal agencies develop strategic plans, establish annual performance plans (which set objective, quantifiable and measurable annual targets and goals), and produce annual program performance reports that compare actual performance to the annual goals. PUCI is part of the GPRA.

The goals, as far as RCRA facilities are concerned, are that by 2005, the States and EPA will verify and document that 95 percent of the 1712 high priority RCRA facilities (of which this is one) will have "current human exposures under control," and 70 percent of these facilities will have "migration of contaminated groundwater under control."

Threats and Contaminants:

Contamination at the PUCI site occurred from former waste management practices that resulted in leaks from process and storage areas. The RCRA Facility Investigation (RFA) completed in 1991 identified contaminated areas at the site including a 1987 spill from PUCI's underground storage tanks and 26 Solid Waste Management Units (SWMUs). The spilled liquid hazardous waste consisted of carbon tetrachloride, acetonitrile, and chloroform, and contaminated soil and groundwater.

Cleanup Approach

Cleanup Status/Corrective Action:

The site is being addressed by PUCI under EPA oversight, in two measures: Interim Corrective Measures (ICM) and long-term corrective measures directed at clean up of the entire site.

Response Action Status:

Interim Corrective Measures: Interim Corrective Measures implemented at the site included removal of onsite "hot spots" of contaminated soils and sediments/sludges which act as sources of contamination to the groundwater. Interim Measures were taken to first address the most serious areas of contamination and threats to groundwater.

Entire Site: The 1991 RCRA permit requires PUCI to conduct RCRA Facility Investigation (RFI), Corrective Measure Study (CMS), Corrective Measure Implementation (CMI) and ultimately cleanup the contamination at the entire facility.

An extensive site-wide RCRA Facility Investigation (RFI) has identified the extent of contamination. Corrective action is being undertaken to address the contamination as follows: 1) most contaminated areas of the facility were remediated by excavation of soils resulting in "No Further Action" status for the remediated areas; 2) continuation of the groundwater remediation activities under the requirements of the

1989 Order issued by EPA under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) which has been very effective in reducing the groundwater contamination; 3) installation and implementation of soil vapor extraction (SVE) system to remove the residual volatile organic compounds from the contaminated soils.

Cleanup Progress:

Three remaining areas of soil contamination are presently being addressed for cleanup. In May 2000, PUCI will submit a report to EPA presenting recommendations on the remediation technologies that will be used to clean up the remaining areas of soil contamination at the site.

Permits Status

PUCI's RCRA permit for its above ground tank and storage system was due to expire in December 1996. The permit, which was administratively extended, is in the process of being renewed. In the meantime, PUCI is bound to operate under the provisions of the 1991 permit.

EPA plans to public notice the draft permit and make a final permit in 2000.

Site Repository:

The United States Environmental Protection, Region 2, Division of Environmental Planning & Protection, 290 Broadway, 22nd Floor, New York, New York 10007.